

Symptoms of Respiratory Diseases

■ Cardinal Symptoms

- Cough
- Sputum
- Hemoptysis
- Dyspnea
- Wheezes
- Chest pain

Symptoms of Respiratory Diseases

- Other presenting symptoms
 - Apnea
 - Hoarseness
 - Stridor
 - Snoring
 - Fever
 - Night sweating
 - Weight loss

Symptoms of Respiratory Diseases

- **Cough**
- Cough is the most frequent symptom of respiratory diseases
- **Acute cough**
 - Acute bronchitis
 - Pneumonia
 - Post nasal drip
 - Laryngitis ,pharyngitis
 - Foreign body
 - Aspiration
 - Pulmonary Embolism
 - Left ventricular failure

Symptoms of Respiratory Diseases

- Chronic cough (>4 weeks)
 - Bronchial asthma
 - Chronic bronchitis
 - Pulmonary fibrosis
 - Lung cancer
 - Drugs (ACE inhibitors)
 - Bronchiectasis
 - Post nasal drip
 - GERD

Symptoms of Respiratory Diseases

■ Sputum

- Bronchiectasis (yellow, green, large amount, more in the morning)
- Lung abscess (Foul smelling, **more on lying on the other side of lesion**)
- Pneumonia (yellowish, streaks of blood)
- Pulmonary edema (Pink frothy)



Symptoms of Respiratory Diseases

- **Hemoptysis**
- Coughing up blood, irrespective of the amount, is an alarming symptom and patients nearly always seek medical advice, must always be assumed to have a serious cause until this is excluded.
 - Massive >200 ml/episode
 - Frank (fresh, bright red, no sputum)

Symptoms of Respiratory Diseases

■ **causes**

■ **Bronchial disease**

- Carcinoma*
- Bronchiectasis*
- Acute bronchitis*
- Bronchial adenoma
- Foreign body

■ **Parenchymal disease**

- Tuberculosis*
- Suppurative pneumonia
- Parasites (e.g. hydatid disease, flukes)
- Lung abscess
- Trauma
- Actinomycosis
- • Mycetoma

Symptoms of Respiratory Diseases

■ Lung vascular disease

- Pulmonary infarction*
- Goodpasture's syndrome
- Polyarteritis nodosa
- Idiopathic pulmonary haemosiderosis

Cardiovascular disease

- Acute left ventricular failure*
- Mitral stenosis
- Aortic aneurysm

Blood disorders

- Leukaemia
- Haemophilia
- Anticoagulants

Symptoms of Respiratory Diseases

■ management

severe acute haemoptysis

- the patient should be nursed upright (or on the side of the bleeding, if this is known,
- give high-flow oxygen
- resuscitation.
- Bronchoscopy in the acute phase is difficult
- If radiology shows an obvious central cause, then rigid bronchoscopy under general anaesthesia may allow intervention to stop bleeding;
- if not visualised, Intubation with a divided endotracheal tube
- Bronchial arteriography and embolisation or
- even emergency surgery, can be life-saving .

Symptoms of Respiratory Diseases

- In non life threatening (vast majority)

- **Investigations**

- chest X-ray,
- full blood count (FBC) and clotting screen
- bronchoscopy after acute bleeding has settled,
- CTPA, which may reveal underlying pulmonary thromboembolic disease or alternative causes not seen on the chest X-ray (e.g. pulmonary arteriovenous malformation or small or hidden tumours).

Symptoms of Respiratory Diseases

■ **Breathlessness**

- Breathlessness or dyspnoea can be defined as the feeling of an uncomfortable need to breathe. It is unusual among sensations, as it has no defined receptors, no localised representation in the brain, and multiple causes both in health (e.g. exercise) and in diseases of the lungs, heart or muscles.

Symptoms of Respiratory Diseases

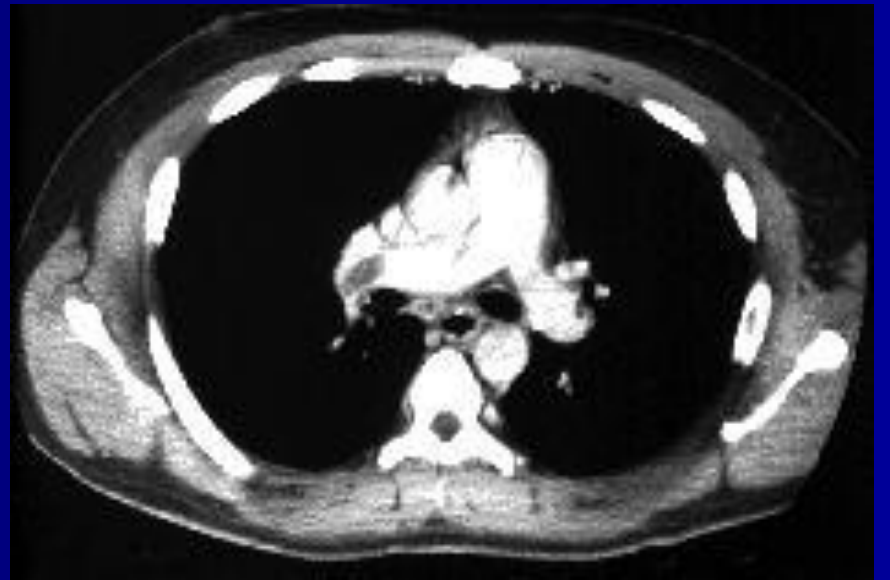
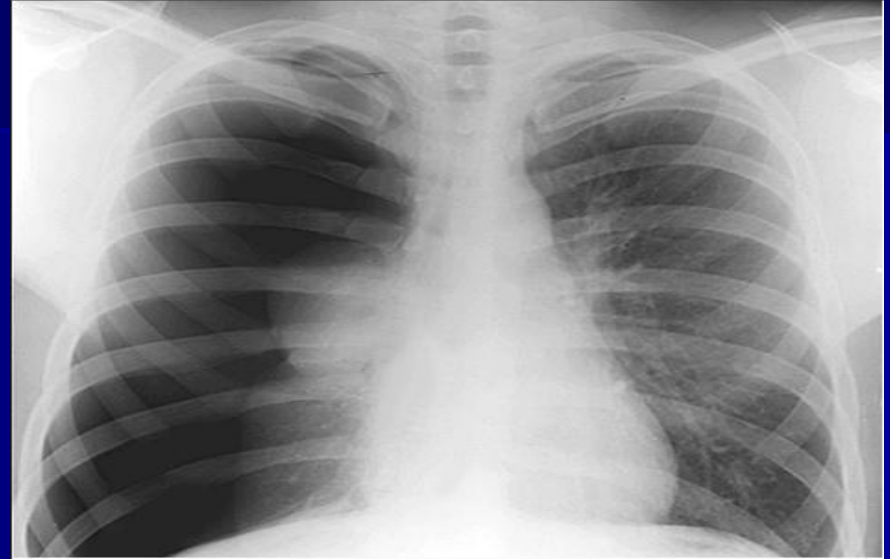
■ *Pathophysiology*

Respiratory diseases can stimulate breathing and dyspnoea by:

- • stimulating intrapulmonary sensory nerves (e.g. pneumothorax, interstitial inflammation and pulmonary embolus)
- increasing the mechanical load on the respiratory muscles (e.g. airflow obstruction or pulmonary fibrosis)
- causing hypoxia, hypercapnia or acidosis, which stimulate chemoreceptors.

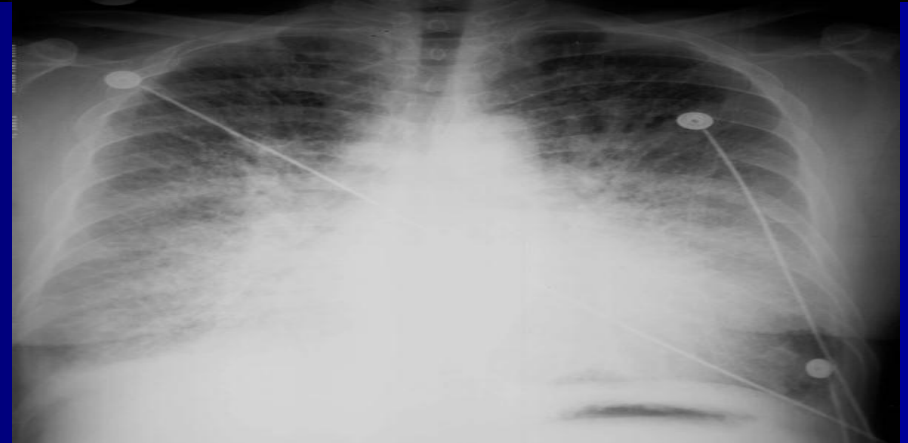
Symptoms of Respiratory Diseases

- **Dyspnea**
 - Sudden (seconds)
 - Pneumothorax (Male, COPD, or Tall, thin)
 - Pulmonary embolism (Female, Pills)



Symptoms of Respiratory Diseases

- **Dyspnea**
 - Acute dyspnea (hours to days)
- **Respiratory**
 - *Acute severe asthma
 - *Acute exacerbation of COPD
 - *Pneumothorax
 - *Pneumonia
 - *Pulmonary embolus
 - ARDS
 - Inhaled foreign body (especially in children)
 - Lobar collapse
 - Laryngeal oedema (e.g. anaphylaxis)



Symptoms of Respiratory Diseases

- **Cardiovascular**

- *Acute pulmonary oedema

- **Others**

- **Metabolic acidosis** (e.g. diabetic ketoacidosis, lactic acidosis, uraemia, overdose of salicylates, ethylene glycol poisoning).

- **Psychogenic hyperventilation** (anxiety or panic-related)

Symptoms of Respiratory Diseases

- Chronic dyspnea (months to Years)

- Respiratory

 - *COPD

 - *Chronic asthma

 - Bronchial carcinoma

 - Interstitial lung disease (sarcoidosis, fibrosing alveolitis, extrinsic allergic alveolitis, pneumoconiosis)

 - Chronic pulmonary thromboembolism

 - Lymphatic carcinomatosis (may cause intolerable breathlessness)

- Large pleural effusion(s)

Symptoms of Respiratory Diseases

- **Cardiovascular**
 - Chronic heart failure
 - Myocardial ischaemia (angina equivalent)
- **Others**
 - Severe anaemia
 - Obesity
 - Deconditioning

Symptoms of Respiratory Diseases

■ **Factors suggesting psychogenic hyperventilation**

Inability to take a deep breath'

- Frequent sighing/erratic ventilation at rest
- Short breath-holding time in the absence of severe respiratory disease
- Difficulty in performing and/or inconsistent spirometry measures
- High score (over 26) on Nijmegen questionnaire
- Induction of symptoms during submaximal hyperventilation
- Resting end-tidal CO₂ < 4.5%
- Associated digital paraesthesiae

Symptoms of Respiratory Diseases

- Types of dyspnea
 - Paroxysmal dyspnea
 - Bronchial asthma (wheezes, no crackles)
 - Left ventricular failure (crackles, cardiomegaly)
 - Nocturnal dyspnea
 - Bronchial asthma
 - GERD
 - LVF

Symptoms of Respiratory Diseases

- Wheezes (Rhonchi)
 - Bronchial asthma
 - COPD
 - Pulmonary embolism
 - Lung cancer
 - Bronchiectasis
 - LVF

Symptoms of Respiratory Diseases

- Chest pain

- central

- Cardiac

- Myocardial ischaemia (angina)
- Myocardial infarction
- Myocarditis, Pericarditis
- Mitral valve prolapse syndrome

- Aortic**

- Aortic dissection • Aortic aneurysm

- Oesophageal**

Oesophagitis, Oesophageal spasm Mallory–Weiss syndrome

- Massive pulmonary embolus

- Mediastinal

- Tracheitis • Malignancy

- Anxiety/emotion¹

Symptoms of Respiratory Diseases

■ **Peripheral**

■ **Lungs/pleura**

- • Pulmonary infarct
- • Pneumonia
- • Pneumothorax
- • Malignancy
- • Tuberculosis
- • Connective tissue disorders

■ **Musculoskeletal2**

- • Osteoarthritis
- • Rib fracture/injury
- • Costochondritis (Tietze's syndrome)
- • Intercostal muscle injury
- • Epidemic myalgia (Bornholm disease)

Symptoms of Respiratory Diseases

■ **Neurological**

- Prolapsed intervertebral disc
- Herpes zoster
- Thoracic outlet syndrome

Symptoms of Respiratory Diseases

Thank you

Signs and Symptoms of Respiratory Diseases

- Suggested Text book to read
 - McLeod's sign and symptoms